

Status of All Claims in the Application:

1-107. (Canceled)

108. (Currently Amended) A hard disk drive comprising:
a drive housing; and

an asymmetrical storage disk that is rotatably coupled to the drive housing, the storage disk including a substantially rigid body region, a first side region that stores data and a second side region opposite the first side region, the body region being positioned between the side regions, the second side region including an exposed outer flat section and a raised stiffener that increases the rigidity of the storage disk, the stiffener extending at least approximately 0.001 millimeters away from the outer flat section.

109. (Previously Presented) The disk drive of claim 108 wherein the stiffener is at least partially exposed.

110. (Previously Presented) The disk drive of claim 108 wherein the stiffener is shaped so that a portion of the stiffener is non-parallel to the outer flat section.

111. (Previously Presented) The disk drive of claim 108 wherein the stiffener is shaped so that a portion of the stiffener is substantially perpendicular to the outer flat section.

112. (Previously Presented) The disk drive of claim 108 wherein the stiffener is configured to guide the flow of fluid within the drive housing.

113. (Previously Presented) The disk drive of claim 108 further comprising a read/write head, wherein the stiffener is configured to guide the flow of fluid at least partially away from the read/write head.

114. (Previously Presented) The disk drive of claim 108 wherein the second side region has an exposed second side surface that includes the outer flat section and an outer ridged section, the outer ridged section extending at least approximately 0.001 millimeters away from the outer flat section.

115. (Previously Presented) The disk drive of claim 114 wherein the outer ridged section extends less than approximately 2.0 millimeters away from the outer flat section.

116. (Previously Presented) The disk drive of claim 108 wherein the storage disk has an inner diameter and an outer diameter, and wherein a width of the stiffener increases along a direction from the inner diameter toward the outer diameter.

117. (Previously Presented) The disk drive of claim 108 wherein the storage disk has an inner diameter and an outer diameter, and wherein a width of the stiffener decreases along a direction from the inner diameter toward the outer diameter.

118. (Previously Presented) The disk drive of claim 108 wherein the storage disk has an inner diameter and an outer diameter, and wherein a width of the stiffener is substantially uniform along a direction from the inner diameter toward the outer diameter.

119. (Previously Presented) The disk drive of claim 108 wherein the storage disk has an inner diameter and an outer diameter, and wherein the stiffener is arc-shaped in a direction moving from the inner diameter to the outer diameter.

120. (Previously Presented) The disk drive of claim 108 wherein the storage disk includes a plurality of raised stiffeners, wherein a height of each of at least two of the stiffeners differs from one another.

121. (Previously Presented) The disk drive of claim 108 wherein the first side

region has a mass that is different than a mass of the second side region.

122. (Previously Presented) The disk drive of claim 108 wherein the first side region has a thickness that is different than a thickness of the second side region.

123. (Previously Presented) The disk drive of claim 108 wherein the first side region has a density that is different than a density of the second side region.

124. (Previously Presented) The disk drive of claim 108 wherein the first side region is substantially planar.

125. (Currently Amended) A hard disk drive comprising:

a drive housing; and

an asymmetrical storage disk that is rotatably coupled to the drive housing, the storage disk including a substantially rigid body region, a first side region that stores data and a second side region opposite the first side region, the body region being positioned between the side regions, the second side region having an exposed second side surface including an outer flat section and an outer ridged section that extends at least approximately 0.001 millimeters above the outer flat section.

126. (Previously Presented) The disk drive of claim 125 wherein the outer flat section is substantially planar.

127. (Currently Amended) The disk drive of claim 125 wherein the storage disk has an inner diameter and an outer diameter, and the storage disk includes a stiffener that increases the rigidity of the storage disk, the stiffener being at least partially exposed.

128. (Previously Presented) The disk drive of claim 127 wherein the stiffener is configured so that a portion of the second side surface is substantially perpendicular to

the outer flat section.

129. (Previously Presented) The disk drive of claim 127 wherein the stiffener is configured to guide the flow of fluid within the drive housing.

130. (Previously Presented) The disk drive of claim 127 wherein the stiffener extends at least approximately 0.001 millimeters above the outer flat section.

131. (Previously Presented) The disk drive of claim 127 wherein a width of the stiffener increases along a direction from the inner diameter toward the outer diameter.

132. (Previously Presented) The disk drive of claim 127 wherein a width of the stiffener decreases along a direction from the inner diameter toward the outer diameter.

133. (Previously Presented) The disk drive of claim 127 wherein a width of the stiffener is substantially uniform along a direction from the inner diameter toward the outer diameter.

134. (Currently Amended) The disk drive of claim 127 ~~wherein the storage disk has an inner diameter and an outer diameter, and~~ wherein the stiffener is arc-shaped in a direction moving from the inner diameter to the outer diameter.

135. (Previously Presented) The disk drive of claim 127 wherein the storage disk includes a plurality of raised stiffeners, wherein a height of each of at least two of the stiffeners differs from one another.

136. (Previously Presented) The disk drive of claim 125 wherein the outer ridged section extends less than approximately 2.0 millimeters away from the outer flat section.

137. (Previously Presented) The disk drive of claim 125 wherein the first side

region has a mass that is different than a mass of the second side region.

138. (Previously Presented) The disk drive of claim 125 wherein the first side region has a thickness that is different than a thickness of the second side region.

139. (Previously Presented) The disk drive of claim 125 wherein the first side region has a density that is different than a density of the second side region.

140. (Previously Presented) The disk drive of claim 125 wherein the first side region has a substantially planar first side surface, and wherein the outer flat section is substantially parallel to the first side surface.

141. (Currently Amended) A method for manufacturing a hard disk drive, the method comprising the step of:

rotatably coupling a storage disk to a drive housing, the storage disk having a substantially rigid body region, a first side region that stores data and a second side region opposite the first side region, the body region being positioned between the side regions, the second side region including an exposed outer flat section and a raised stiffener that increases the rigidity of the storage disk, the stiffener extending at least approximately 0.001 millimeters away from the outer flat section.

142. (Previously Presented) The method of claim 141 wherein the step of rotatably coupling includes shaping the stiffener so that a portion of the stiffener is non-parallel to the outer flat section.

143. (Currently Amended) The method of claim 141 wherein the step of rotatably coupling includes shaping the stiffener so that a portion of the stiffener is ~~non-parallel~~ perpendicular to the outer flat section.

144. (Previously Presented) The method of claim 141 wherein the step of

rotatably coupling includes shaping the stiffener so that a width of the stiffener changes along a direction from an inner diameter toward an outer diameter of the storage disk.

145. (Previously Presented) The method of claim 141 wherein the step of rotatably coupling includes shaping the stiffener so that a width of the stiffener is substantially uniform along a direction from an inner diameter toward an outer diameter of the storage disk.

146. (Previously Presented) The method of claim 141 wherein the step of rotatably coupling includes shaping the stiffener so that the stiffener is arc-shaped in a direction moving from an inner diameter toward an outer diameter of the storage disk.

147. (Previously Presented) The method of claim 141 wherein the step of rotatably coupling includes forming the first side region to have a mass that is different than a mass of the second side region.

148. (Previously Presented) The method of claim 141 wherein the step of rotatably coupling includes forming the first side region to have a thickness that is different than a thickness of the second side region.

149. (Previously Presented) The method of claim 141 wherein the step of rotatably coupling includes forming the first side region to have a density that is different than a density of the second side region.

150. (Currently Amended) A method for manufacturing a hard disk drive, the method comprising the step of:

rotatably coupling a storage disk to a drive housing, the storage disk having a substantially rigid body region, a first side region that stores data and a second side region opposite the first side region, the body region being positioned between the side regions, the second side region having an exposed second side surface including an outer flat section and an outer ridged section

that extends at least approximately 0.001 millimeters above the outer flat section.

151. (Previously Presented) The method of claim 150 wherein the step of rotatably coupling includes increasing the rigidity of the storage disk with a stiffener that raises the outer ridged section above the outer flat section.

152. (Previously Presented) The method of claim 151 wherein the step of rotatably coupling includes shaping the stiffener so that a width of the stiffener changes along a direction from an inner diameter toward an outer diameter of the storage disk.

153. (Previously Presented) The method of claim 151 wherein the step of rotatably coupling includes shaping the stiffener so that a width of the stiffener is substantially uniform along a direction from an inner diameter toward an outer diameter of the storage disk.

154. (Previously Presented) The method of claim 151 wherein the step of rotatably coupling includes shaping the stiffener so that the stiffener is arc-shaped in a direction moving from an inner diameter toward an outer diameter of the storage disk.

155. (Previously Presented) The method of claim 151 wherein the step of rotatably coupling includes forming the first side region to have a mass that is different than a mass of the second side region.

156. (Previously Presented) The method of claim 151 wherein the step of rotatably coupling includes forming the first side region to have a thickness that is different than a thickness of the second side region.

157. (Previously Presented) The method of claim 151 wherein the step of rotatably coupling includes forming the first side region to have a density that is different than a density of the second side region.

158. (New) A disk drive comprising:

a drive housing; and

an asymmetrical storage disk that is rotatably coupled to the drive housing, the storage disk including a body region, a first side region that stores data, a second side region opposite the first side region, and a stiffener that increases the rigidity of the storage disk and guides the flow of fluid within the drive housing, the body region being positioned between the side regions, the second side region having an exposed second side surface including an outer flat section and an outer ridged section that extends at least approximately 0.001 millimeters above the outer flat section.

159. (New) A disk drive comprising:

a drive housing; and

an asymmetrical storage disk that is rotatably coupled to the drive housing, the storage disk including a body region, a first side region that stores data, a second side region opposite the first side region, and a stiffener that increases the rigidity of the storage disk, the stiffener having a width that changes along a direction generally from the inner diameter to the outer diameter, the body region being positioned between the side regions, the second side region having an exposed second side surface including an outer flat section and an outer ridged section that extends at least approximately 0.001 millimeters above the outer flat section.

160. (New) A disk drive comprising:

a drive housing; and

an asymmetrical storage disk that is rotatably coupled to the drive housing, the storage disk having an inner diameter and an outer diameter, the storage disk including a body region, a first side region that stores data, a second side region opposite the first side region, and an arc-shaped stiffener in a direction moving from the inner diameter to the outer diameter, the stiffener increasing the rigidity of the storage disk, the body region being positioned

between the side regions, the second side region having an exposed second side surface including an outer flat section and an outer ridged section that extends at least approximately 0.001 millimeters above the outer flat section.

161. (New) A disk drive comprising:

a drive housing; and

an asymmetrical storage disk that is rotatably coupled to the drive housing, the storage disk including a body region, a first side region that stores data, a second side region opposite the first side region, and a plurality of raised stiffeners that increase the rigidity of the storage disk, at least two of the stiffeners having heights that differ from one another, the body region being positioned between the side regions, the second side region having an exposed second side surface including an outer flat section and an outer ridged section that extends at least approximately 0.001 millimeters above the outer flat section.

162. (New) A method for manufacturing a disk drive, the method comprising the step of:

rotatably coupling a storage disk to a drive housing, the storage disk having a body region, a first side region that stores data and a second side region opposite the first side region, the body region being positioned between the side regions, the second side region having an exposed second side surface including an outer flat section and stiffener that extends at least approximately 0.001 millimeters above the outer flat section, the stiffener increasing the rigidity of the storage disk, the stiffener having a width that is non-uniform.